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APPLICANT : NIPPON STAINLESS STEEL CO LTD;

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TITLE : PRODUCTION OF TWO PHASE STAINLESS CAST STEEL PRODUCT OF HIGH CR AND LOW NI HAVING EXCELLENT SEA WATER RESISTANCE

ABSTRACT : PURPOSE: To suppress efficiently the deposition of a σ phase and to produce stably a cast steel product having excellent sea water resistance by charging a molten high Cr low Ni stainless steel having a specific component compsn. into a casting mold, knocking out the mold at a specific temp. after solidification and cooling quickly the steel.

CONSTITUTION: A molten high Cr low Ni stainless steel contg., by wt%, $\leq 0.05\%$ C, $\leq 2.0\%$ Si, $\leq 2.0\%$ Mn, 22.0~30.0% Cr, 4.0~11.0% Ni, 0.5~5.0% Mo, 0.10~ 0.60% Cu, $\leq 0.04\%$ P, $\leq 0.03\%$ S, $\leq N$, and further contg. 1 kind of 0.05~ 1.50% W or 0.05~1.50% V, and consisting of the balance Fe with inevitable impurities is charged into a casting mold and is solidified. The mold is knocked out while the molten steel is in the high temp. state before cooling down to a temp. region of $< 1,000^{\circ}\text{C}$ and the steel is immediately and quickly cooled. The two phase stainless cast steel product having excellent sea water resistance is thus mass-produced easily at a low cost.

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